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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/562,131

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Takashi Kakiuchi

2005_1919A

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52349

7590

04/20/2009

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EXAMINER

KASTURE, DNYANESH G

ART UNIT

PAPER NUMBER

3746

MAIL DATE

DELIVERY MODE

04/20/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/562,131	Applicant(s) KAKIUCHI ET AL.	
	Examiner DNYANESH KASTURE	Art Unit 3746	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 January 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 December 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on January 26, 2009 has been entered.

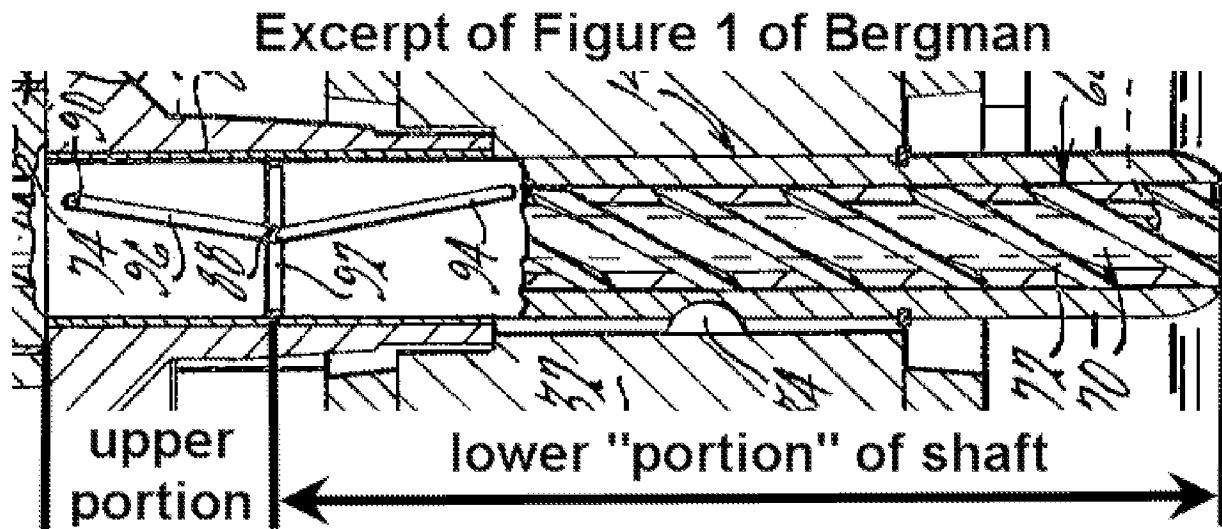
Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-3 and 5 are rejected under 35 U.S.C. 102(b) as being anticipated by Bergman (US Patent 3,848,702 A)

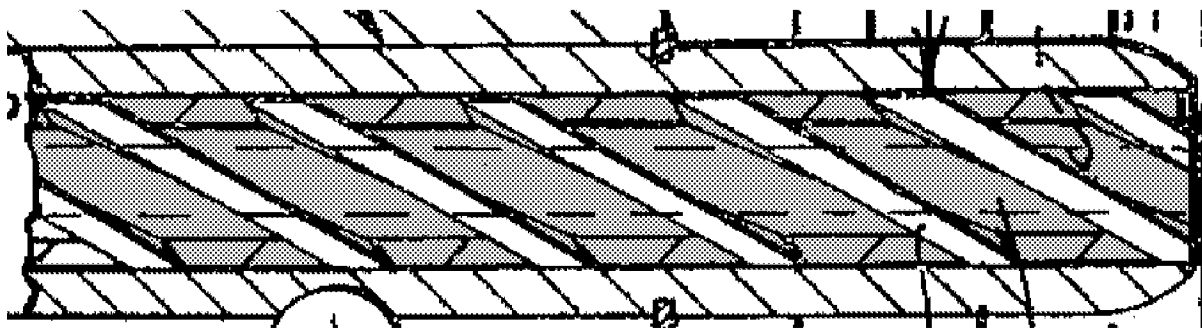


4. In Re claim 1, with reference to blowup of Figure 1 depicted above, Bergman teaches a hermetically sealed compressor comprising:
- a sealed vessel (casing halves (22 and 24) are sealed together) filled with a coolant and a freezer oil (the compressor is used for refrigeration, and therefore would compress a coolant, and lubricating oil is stored in a main reservoir (82) in the bottom of the compressor);
 - an electromotive element including a rotor and a stator ((30 and 32), not discussed in the specification but shown in figure 1), the electromotive element accommodated within the sealed vessel
 - a compressing element (40, in compressor (16)) accommodated within an upper region of the sealed vessel and adapted to be driven by the electromotive element (the compressor is driven by the rotor and stator), the compressing element being provided with a shaft (tubular, shaft-like wall (70) with ribs (72)), arranged so as to extend vertically and having the rotor mounted thereon (the rotor, and the rotor's hub (tube 14), which is attached to the rotor via component (34), are mounted on the shaft (70)), and a

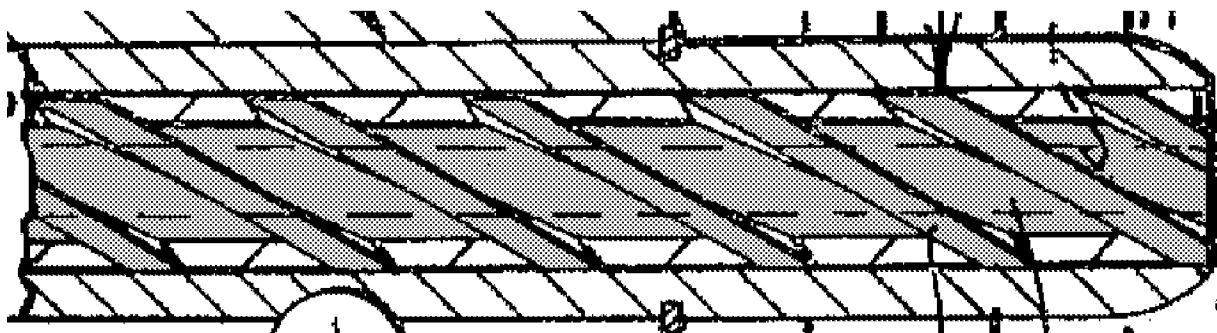
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bearing (36) for supporting the shaft (the eccentric 36 reads on a bearing support because it helps prevent the shaft (14, 70) from downward vertical movement);

- a first oil pump comprising an inclined hole (94) defined in a lower portion of the shaft (see annotation for definition of lower portion, it is a lower portion because it is in a lower part of the shaft, the inclined hole is formed between the inner circumference of element (86) and groove 94) and opening into the freezer oil (the inclined hole "opens into" the freezer oil because it communicates with the oil reservoir 82 through hole 88 and the inside through hole of shaft 70); the entire lower portion as annotated above reads on the first oil pump as claimed;



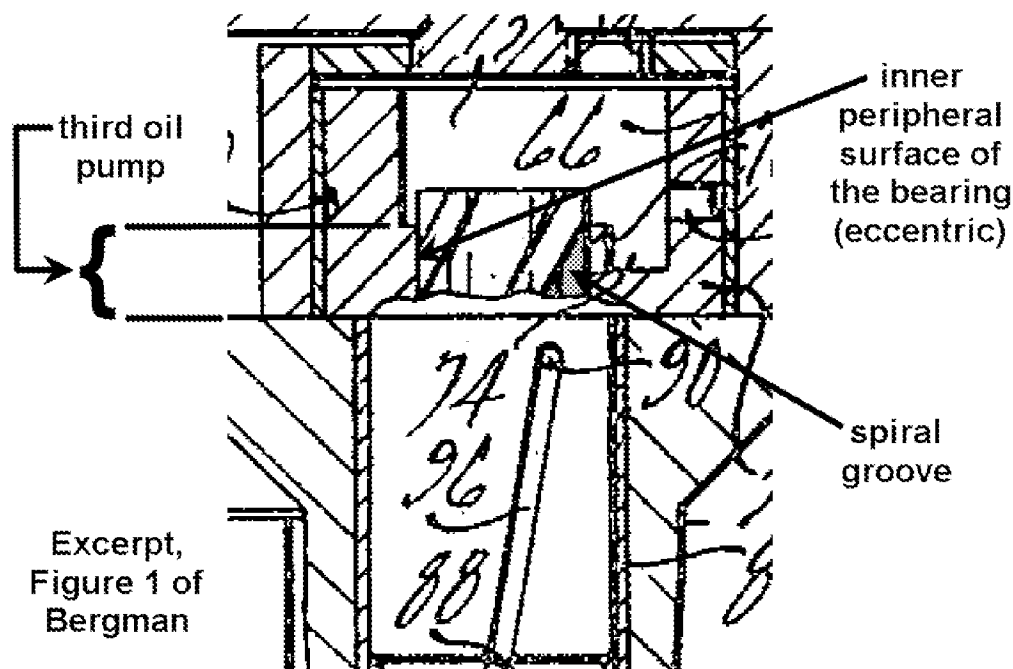
Excerpt, Figure 1 of Bergman, painted area = spiral groove



Excerpt, Figure 1 of Bergman, painted area = shaft

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- a second oil pump (is the part labeled “upper portion” as annotated) provided above the first oil pump and formed by a spiral groove and an inner peripheral wall surface of the rotor (space between ribs 72 and an inner peripheral wall surface of the rotor 14 as painted above – note that the grooves continue on through the upper portion and beyond, partly into the eccentric); the circumferential surface of the ribs (72) are part of the shaft – so the ribs (72) and tube (70) combination can be interpreted as a bigger shaft having the same outer diameter as the ribs (72) with grooves cut into the surface; in other words the outer circumferential surface of the ribs is the same as the “outer periphery of the shaft” as claimed; clearly the inclined hole (94) of the first pump communicates with the grooves (outer periphery of the shaft) in the second oil pump through a throughhole (88) as claimed: “the second oil pump being communicated with the first oil pump through a throughhole that communicates the outer periphery of the shaft with the inclined hole in the lower portion of the shaft”



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- and as annotated above, a third oil pump provided above the second oil pump and formed by a spiral groove and an inner peripheral surface of the bearing, the spiral groove being provided on the outer periphery of the shaft

5. In Reference to Claim 2 :

Bergman teaches the hermetically sealed compressor as claimed in claim 1 (see the rejection of claim 1 above), wherein the spiral groove of the second oil pump and the spiral groove of the third oil pump are formed continuously because the shaft is a monolithic integral single piece.

6. In Reference to Claim 3:

Bergman teaches the hermetically sealed compressor as claimed in claim 2 (see the rejection of claim 2 above), wherein the spiral groove of the second oil pump and the spiral groove of the third oil pump open in communication with a first gap formed between the rotor and the bearing (The spiral grooves of the second and third oil pumps are in communication with a gap that exists between the bearing (eccentric) and the rotor (tube 14), since the eccentric and rotor are separate pieces and there would have to be at least some gap on a microscopic scale).

7. In Reference to Claim 5:

Bergman teaches the hermetically sealed compressor as claimed in claim 2 (see the rejection of claim 2 above), wherein the rotor has an upper end face formed with a bore

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(fitting axial section of the eccentric) for receiving the bearing (intended use language does not distinguish structure) and a second gap (74) is formed between an inner peripheral surface of the bore and an outer peripheral surface of the bearing (eccentric).

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. ALTERNATIVELY, Claims 1 are rejected under 35 U.S.C. 103(a) as being unpatentable over Khoo et al (US Patent 5,842,420 A) in view of Giacosa (US Patent 3,586,456 A) and as extrinsically evidenced by Ishida et al. (WO 03/008805, translation - US 7,144,229 B2), Shin (PG Pub US 20050115771 A1) and Hayano et al (US Patent 4,762,477 A)

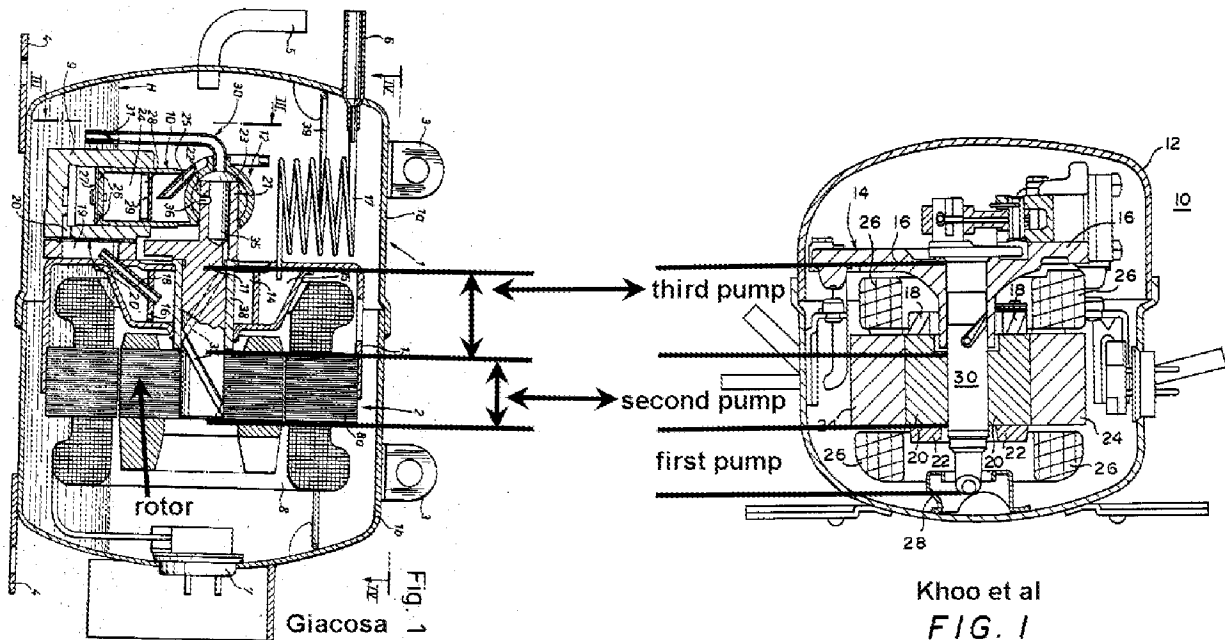
10. In Re claim 1, Khoo et al discloses a hermetically sealed compressor (10) comprising: a sealed vessel filled (12) with a coolant and a freezer oil ("sump" as stated in Column 3, Lines 34);

- an electromotive element including a rotor (20) and a stator (24), the electromotive element being accommodated within the sealed vessel;
- a compressing element (depicted on top of 16) accommodated within an upper

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region of the sealed vessel and adapted to be driven by the electromotive element, the compressing element being provided with a shaft (30), arranged so as to extend vertically and having the rotor mounted thereon, and a bearing (16) for supporting the shaft;

- a first oil pump (annotated) provided comprising an inclined hole (64) defined in a lower portion of the shaft and opening into the freezer oil;
 - a second oil pump (annotated) provided above the first oil pump
 - a third oil pump (annotated) provided above the second oil pump and formed by a spiral groove (68 – See figures 4 and 5) and an inner peripheral surface of the bearing, the spiral groove being provided on the outer periphery of the shaft as depicted
11. However, Khoo et al does not disclose a spiral groove in the second pump, on the outer periphery of the shaft, that communicates with the throughhole of the first oil pump.



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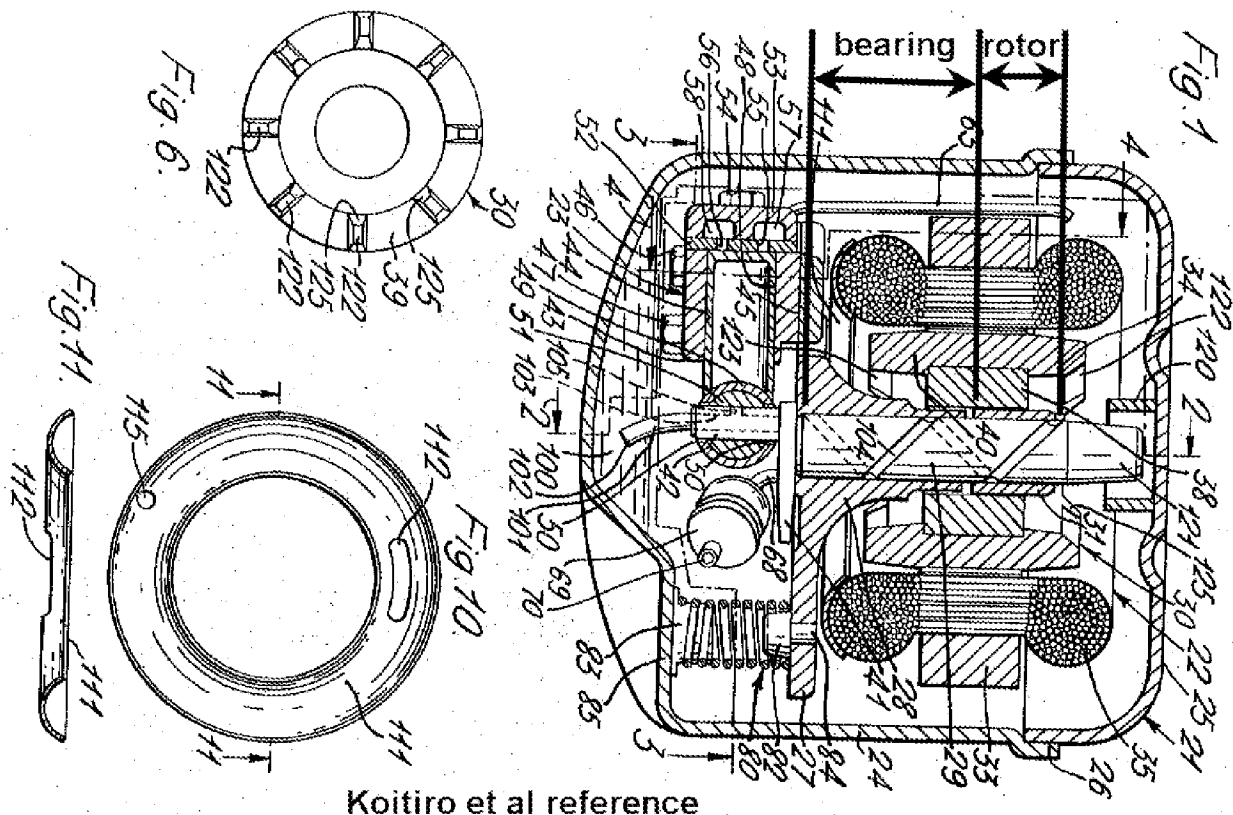
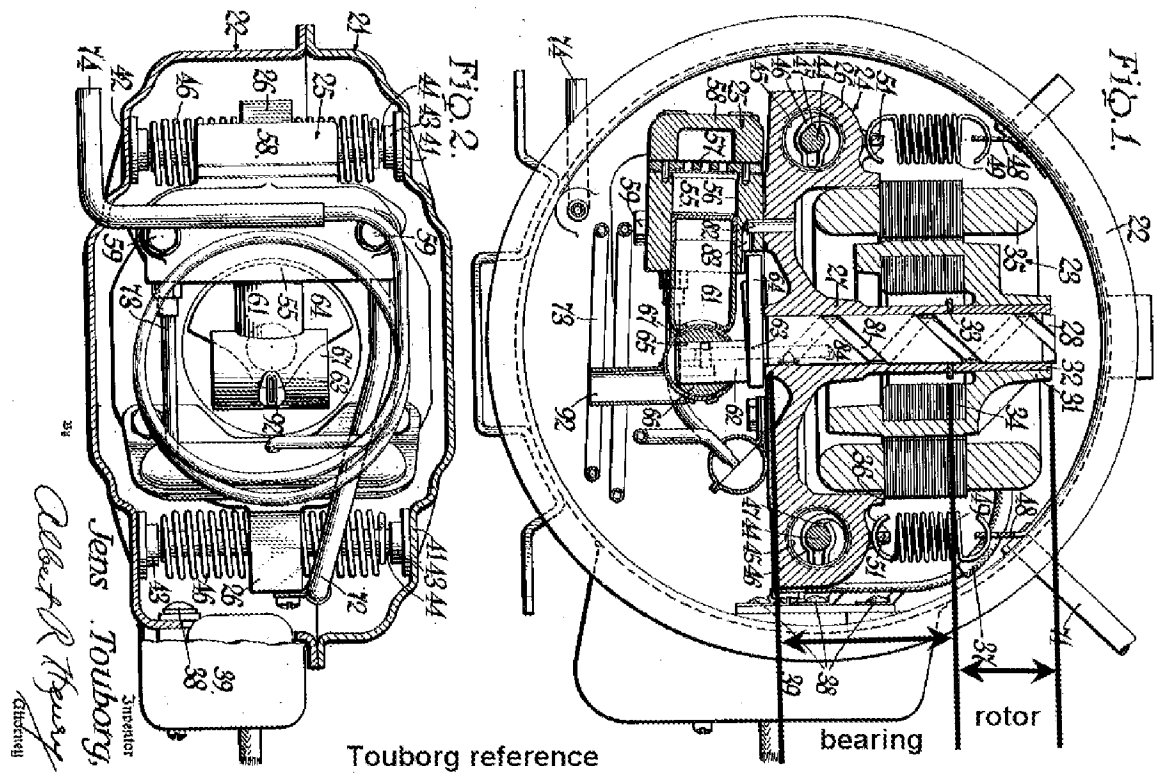
12. Nevertheless, Giacosa discloses a hermetically sealed compressor with an electromotive element including a rotor and a stator, a compressing element and a shaft with a spiral groove (37) formed on the outer periphery, comprising:

- an upper section (of the shaft) that passes through the bearing (38) and
- a lower section (of the shaft) having a rotor mounted thereon (Figure 1)
- the spiral groove exists in both, the upper section and lower section (the dotted lines depict the groove in the upper section)

13. It would have been obvious to a person having ordinary skill in the art at the time of the invention to modify the shaft of Khoo et al so it's spiral groove extends along the outer periphery of the shaft into the second pump as taught by Giacosa, with the end of the groove communicating with the inclined hole of the first pump as before. The advantage of the modification being added cooling of the rotor because the lubricant would be in direct contact with it.

14. Ishida et al and Shin provide additional evidence of a crankshaft similar to Khoo et al. Hayano et al provides more evidence of a shaft, this one is used in a scroll compressor. The shaft has groove and inclined hole configurations similar to that of Khoo et al, Ishida et al and Shin et al.

15. ALTERNATIVELY, Claims 1 are rejected under 35 U.S.C. 103(a) as being unpatentable over Khoo et al (US Patent 5,842,420 A) and in view of Touborg (US Patent 2,587,246 A) or Koitiro et al (US Patent 3,306,524 A)



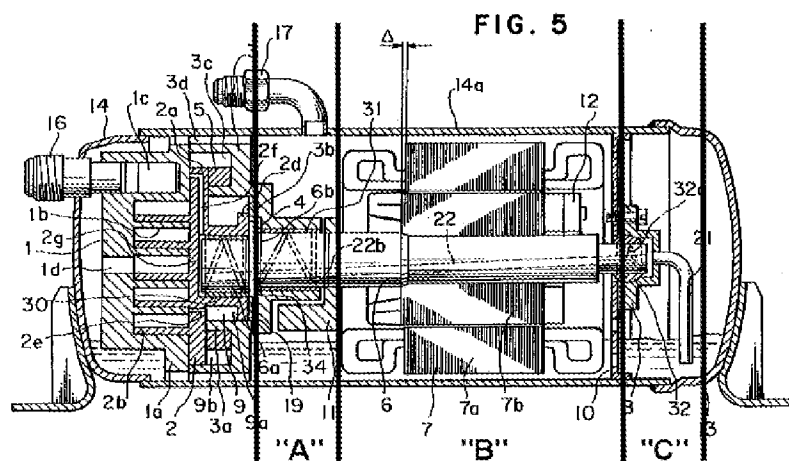
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16. In Re claim 1, Khoo et al as discussed earlier discloses all the claimed limitations except for the groove extending into the second pump.

17. Nevertheless, Touborg or Koitiro et al disclose spiral grooves formed on the outer peripheral surface of the shaft extending through the bearing and along the rotor.

18. It would have been obvious to a person having ordinary skill in the art at the time of the invention to modify the shaft of Khoo et al so it's spiral groove extends along the outer periphery of the shaft into the second pump as taught by Touborg or Koitiro et al, with the end of the groove communicating with the inclined hole of the first pump as before. The advantage of the modification being added cooling of the rotor because the lubricant would be in direct contact with it.

19. ALTERNATIVELY, Claims 1 are rejected under 35 U.S.C. 103(a) as being unpatentable over Matsunaga et al (US Patent 5,660,539 A) in view of Giacosa (US Patent 3,586,456 A) and further in view of Iida et al (US Patent 3,692,435 A)



Legend:
 "A" = third pump
 "B" = second pump
 "C" = first pump

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20. In Re claim 1, Matsunaga et al (Figure 5) discloses all the claimed limitations except for an inclined hole formed in the first pump and a spiral groove formed in the second pump.

21. Nevertheless, Giacosa as discussed before discloses a spiral groove and Iida et al discloses an inclined hole (20) formed in the first pump.

22. It would have been obvious to a person having ordinary skill in the art at the time of the invention to modify the shaft of Matsunaga et al so that the second pump section also has a spiral groove as taught by Giacosa and to modify the oil feed pipe (21) of Matsunaga et al so it has an inclined hole as taught by Iida et al for the purpose of trapping foreign matter (as stated by Iida et al) and preventing it from entering the oil feed pipe. The motivation for the Giacosa modification has already been discussed above.

23. Claims 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Khoo et al (US Patent 5,842,420 A) in view of Giacosa (US Patent 3,586,456 A) and further in view of Tamura et al (US Patent 6,547,538 B1) and as extrinsically evidenced by Ishida et al. (WO 03/008805, translation - US 7,144,229 B2), Shin (PG Pub US 20050115771 A1) and Hayano et al (US Patent 4,762,477 A)

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24. In Re claim 10, Khoo et al and Giacosa as applied to claim 1 discloses all the limitations except that the electromotive element is a bipolar permanent magnet electric motor including a permanent magnet built in a rotor iron core of the rotor.

25. Nevertheless, Tamura et al teach a motor (53) comprising a rotor (55) wherein permanent magnets (70a) and (70b) are built in the core (68). Tamura et al teach further that permanent magnets comprise of both north (N) and south (S) poles ultimately allowing for a bipolar permanent magnet electric motor (see column 4 line 66 - column 5 line 10 and Fig. 2).

26. Therefore it would be obvious at the time of the invention to utilize a bipolar permanent magnet electric motor including a rotor with built in permanent magnets due to the fact that is a well- known type of motor that would be known to one of ordinary skill in the art. As to the rotor having an iron core, it is notoriously known in the art for the core to be constructed from a material as such. Furthermore, Tamura et al teach a motor in which the rotor comprises of an iron core (see column 1, lines 34 - 37).

27. Claims 4, 6, 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bergman (US Patent 3,848,702 A)

28. In Reference to Claim 4:

Bergman teaches the hermetically sealed compressor as claimed in claim 3 (see the rejection of claim 3 above), but does not teach the size of the first gap.

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However, the size of the first gap is considered to be an obvious design choice that one of ordinary skill in the art would have known how to optimize in view of the specific technical requirements of the hermetically sealed compressor design. Further, to the extent that the claimed invention produces the claimed desired results, the applied prior art structure being the same, does the same. In addition, it has been held that "[W]here the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine experimentation." *In re Aller*, 220 F.2d 454,456, 105 USPQ 233, 235 (CCPA 1955), MPEP 2144.05 I1.

29. In Reference to Claim 6:

Bergman teaches the hermetically sealed compressor as claimed in claim 5 (see the rejection of claim 5 above), but does not teach the size of the second gap.

However, the size of the second gap is considered to be an obvious design choice that one of ordinary skill in the art would have known how to optimize in view of the specific technical requirements of the hermetically sealed compressor design. Further, to the extent that the claimed invention produces the claimed desired results, the applied prior art structure being the same, does the same. In addition, it has been held that "[W]here the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine experimentation." *In re Aller*, 220 F.2d 454,456, 105 USPQ 233, 235 (CCPA 1955), MPEP 2144.05 I1.

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30. In Reference to Claim 7:

Bergman teaches the hermetically sealed compressor as claimed in claim 5 (see the rejection of claim 5 above), but does not teach the specific depth of the bore.

However, the size of the bore is considered to be an obvious design choice that one of ordinary skill in the art would have known how to optimize in view of the specific technical requirements of the hermetically sealed compressor design. Further, to the extent that the claimed invention produces the claimed desired results, the applied prior art structure being the same, does the same. In addition, it has been held that "[W]here the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine experimentation." In re Aller, 220 F.2d 454,456, 105 USPQ 233, 235 (CCPA 1955), MPEP 2144.05 I1.

31. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bergman in view of U.S. Patent 2,526,443 to Woodson (Woodson).

Bergman teaches the hermetically sealed compressor as claimed in claim 3 (see the rejection of claim 3 above), but does not teach an axially elastically deformable washer interposed in the first gap.

Woodson teaches a similar pump apparatus, where a rubber sealing ring (18) is placed between the pump shaft (8) and the pump housing (15) below the main pump (20) in

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order to prevent the pumped liquid from running down the shaft (see column 2 lines 1-14 and lines 47-52).

It would have been obvious to one of ordinary skill in the art at the time of invention to include a sealing ring as taught by Woodson in the first gap of Bergman in order to prevent any pumped fluid from leaking down the shaft into the oil sump.

32. Claims 2, 3, 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Khoo et al (US Patent 5,842,420 A) in view of Giacosa (US Patent 3,586,456 A) and further in view of U.S. Patent 5,340,287 to Kawahara et al. (Kawahara et al.).

33. In Re claims 2, 3 and 9, Giacosa discloses a continuous spiral groove (37), Khoo et al depicts a first gap between the rotor (20) and bearing. Khoo et al modified by Giacosa teaches the hermetically sealed compressor as claimed, but does not teach that the rotor has a center of magnetism displaced below a center of magnetism of the stator or that the first gap becomes almost zero over the entire circumference thereof when the rotor ascends by a magnetic force of attraction during operation.

Nevertheless, Kawahara teaches of a scroll-type compressor comprising of an electric motor in which the magnetic centers of the rotor and stator are offset from one another. Kawahara teaches that when the electric motor is arranged such that the magnetic centers of the rotor and stator are offset from each other, a magnetic attracting force acts as an axial pre-load on the inner race of the upper bearing in addition to the weight

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of the crankshaft and associated parts (see column 7, lines 5-11). It is interpreted that the load is generated by the rotor being displaced into alignment with the center of magnetism of the stator due to the magnetic force there between.

Therefore it would be obvious to one of ordinary skill in the art at the time of the invention to offset the center of magnetism of the rotor from that of the stator of Khoo et al in order to achieve a magnetic attraction there between allowing for the rotor to be displaced by a particular distance to overcome the offset of their magnetic centers. Furthermore, it would be obvious to offset the rotor's center of magnetism a particular distance below the center of magnetism of the stator to achieve and upward displacement of the rotor by a desired distance. In order to allow the rotor to shift in this manner, the position of the first gap would need to be shifted, but this type of minor modification would be within the skill of one familiar with the art.

34. Alternatively Claim 10, and Claims 13, 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bergman in view of U.S. Patent 6,547,538 to Tamura et al. (Tamura et al.).

35. In Reference to Claim 10, Bergman teaches all the claimed limitations except that the electromotive element is a bipolar permanent magnet electric motor including a permanent magnet built in a rotor iron core of the rotor.

Tamura et al. teach a motor (53) comprising a rotor (55) wherein permanent magnets

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(70a) and (70b) are built in the core (68). Tamura et al. teach further that permanent magnets comprise of both north (N) and south (S) poles ultimately allowing for a bipolar permanent magnet electric motor (see column 4 line 66 - column 5 line 10 and Fig. 2). Therefore it would be obvious at the time of the invention to utilize a bipolar permanent magnet electric motor including a rotor with built in permanent magnets due to the fact that is a well- known type of motor that would be known to one of ordinary skill in the art. As to the rotor having an iron core, it is notoriously known in the art for the core to be constructed from a material as such. Furthermore, Tamura teaches of motor in which the rotor comprises of an iron core (see column 1, lines 34 - 37).

36. In Reference to Claim 13:

Bergman as modified by Tamura et al. teaches the hermetically sealed compressor of claim 10 (see the rejection of claim 10 above), including a self starting synchronous motor (53) in which conductor bars (71) are provided on the periphery of the rotor (55) of a starter cage conductor on the outer periphery of the rotor core and also including a plurality of permanent magnets (70a) and (70b) embedded within the rotor core (see column 4 lines 33 - 38, column 5 lines 23 - 36 and Fig. 2). As to the rotor having an iron core, it is notoriously known in the art for the core to be constructed from a material as such.

37. In Reference to Claim 14:

Bergman as modified by Tamura et al. teaches the hermetically sealed compressor as

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claimed in claim 10 (see the rejection of claim 10 above), and that the permanent magnets (70a) and (70b) are rare earth magnets (see column 4, line 66 - column 5, line 3). It would have been obvious to one of ordinary skill at the time of the invention to utilize magnets as such since they are already known in the art. Furthermore, it would be obvious for one of ordinary skill in the art to select a permanent magnet from a finite number of resources whether it is a permanent magnet that occurs naturally or one which is manufactured. A person of ordinary skill has good reason to pursue the known options of permanent magnets within his or her technical grasp. If this leads to the anticipated success, it is likely the product not of innovation but of ordinary skill and common sense.

38. Claims 11, 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Khoo et al (US Patent 5,842,420 A) in view of Giacosa (US Patent 3,586,456 A) and further in view of Tamura et al (US Patent 6,547,538 B1) and U.S. Patent 5,266,016 to Kandpal (Kandpal) and as extrinsically evidenced by Ishida et al. (WO 03/008805, translation - US 7,144,229 B2), Shin (PG Pub US 20050115771 A1) and Hayano et al (US Patent 4,762,477 A)

In Reference to Claim 11

Khoo et al as modified by Giacosa and Tamura et al. teaches the hermetically sealed compressor as claimed in claim 10 (see the rejection of claim 10 above), but does not

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teach that the main bearing does not intersect a plane containing one end of the rotor iron core adjacent the compressing element and lying generally perpendicular to a longitudinal axis of the main shaft.

Kandpal teaches a hermetically sealed compressor wherein it may be visually observed in Fig. 1 that the element (60), analogous to the main bearing as designated by the applicant, is arranged in a comparable manner in which it (60) does not intersect a plane containing one end of the rotor core (30) adjacent the compressing element (20) and lying generally perpendicular to a longitudinal axis of the main shaft (see Fig. 1).

It would have been obvious to one of ordinary skill in the art at the time of invention to arrange the rotor and bearing of Khoo et al as modified by Giacosa and Tamura et al. in the manner taught by Kandpal in order to avoid any wear and tear on the rotor caused by it coming into contact with the bearing.

In Reference to Claim 12

Khoo et al as modified by Giacosa and Tamura et al. teaches the hermetically sealed compressor as claimed in claim 10 (see the rejection of claim 10 above), but does not teach an auxiliary shaft portion provided coaxially of the main shaft portion with the eccentric shaft portion intervening between it and the main shaft portion, and an auxiliary bearing for supporting the auxiliary shaft portion.

Kandpal teaches a compressor in which an auxiliary shaft portion (26) is provided coaxially of the main shaft portion with the eccentric shaft portion (42) intervening

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between the main shaft portion and the auxiliary shaft portion (26), and an auxiliary bearing (62) for supporting the auxiliary shaft portion (26) (see Fig. 1).

It would have been obvious to one of ordinary skill in the art at the time of invention to use the compressor arrangement of Kandpal instead of the compressor as taught by Khoo et al, since the compressor of Kandpal is well known in the art as an alternative to the compressor of Khoo et al, and since the combining of the two would yield predictable results.

Response to Arguments

39. Applicant's arguments with respect to claims 1-14 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DNYANESH KASTURE whose telephone number is (571)270-3928. The examiner can normally be reached on Mon-Fri, 9:00 AM to 4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Devon Kramer can be reached on (571) 272 - 7118. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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